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ABSTRACT

A study was conducted on the influence of female athletes' dispositional and situational tendencies on the selection of sources of sport confidence. It hypothesized that task orientation and perceptions of mastery climate would be positively associated with the selection of maladaptive or normative sources of confidence. Participants were 180 females between the ages of 12 and 18 playing competitive volleyball. Consistent with the hypothesis, task orientation and perceptions of mastery climate were positively associated with adaptive sources of sport confidence as well as social sources. Ego orientation was positively associated with maladaptive sources of confidence. Perceptions of mastery climate supported a mediational rather than a moderational role for motivational climate in predicting the social support and coach's leadership sources of sport confidence. Performance climate was negatively associated with the coach's leadership source of confidence. (Contains 4 figures and 40 references.) (JDM)

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Influence of Achievement Beliefs on
Adolescent Girls' Sport Confidence Sources

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The Influence of Dispositional and Situational Tendencies on Adolescent Girls' Selection of Sport Confidence Sources

Participation in youth sports provides children with the opportunity to evaluate improvement, progress toward personal goals, and demonstrate one's ability in comparison to others (Duda & Hall, 2001). Therefore, youth athletes may potentially define successful mastery experiences in relation to a self-referenced standard, a normative standard, or a combination thereof (Duda, *in press*; Roberts & Treasure, 1995). How youth athletes choose to bestow meaning on the formal evaluation of competition and personal success depends, in part, on both the situational (i.e., motivational climate) and dispositional (i.e., goal orientations) tendencies that operate in youth sports. More importantly, whether a child learns to utilize self-referenced, normative, or a combination of both types of sources of information may have implications for the development of achievement-related beliefs such as self-confidence and the ultimate psychological well-being of the athlete. The purpose of this study was to identify the influence of dispositional and situational tendencies on the selection of sources of confidence information in sport.

The ability to build and maintain self-confidence in sport can enhance athletic performance and one's overall sport experience (Chase, 1998; Feltz, 1994; Feltz & Lirgg, 2001; Vealey, 2001). Successful mastery of a task is expected to enhance confidence; however, Bandura (1997), acknowledges that individuals who perform the same task and master the same challenges may in fact vary in the amount of perceived confidence that is derived from their success. Based on the theoretical tenets proposed by Bandura (1997), individuals may use different sources to develop, enhance, and sustain confidence, and that these individual differences may even be observed among athletes in sport (Bandura, 1990; Feltz & Lirgg, 2001; Vealey, Hayashi, Garner-Holman, & Giacobbi, 1998; Vealey, 2001).

The observed differences in the selection of self-confidence sources and self-perceptions of overall confidence may be partially explained by individual differences in perceptions of success, or more specifically, goal orientations (Duda & Nicholls, 1992; Magyar & Duda, 2000; Nicholls, 1984; Williams, 1994). Goal orientations are dispositional inclinations regarding the

evaluation of one's perceptions of ability and success in achievement situations (Duda & Nicholls, 1992; Nicholls, 1984). The two primary orientations are termed task and ego orientation. When primarily task oriented, the goal of the individual is learning, trying hard, improving, and mastering the task. Regardless of perceived confidence, task-involved individuals have been found to display adaptive achievement behaviors such as choosing a task that is challenging, exerting maximal effort, and persisting when faced with difficulty (Duda, & Hall, 2001; Nicholls, 1984, 1992).

Central to ego orientation, on the other hand, is the desire to demonstrate one's ability and use social comparison to define successful mastery experiences. The adaptive patterns that are present with task orientation are also believed to exist in the case of predominantly ego-oriented individuals as long as their perceived confidence for the task is high. However, when the emphasis of ego-involved goals is coupled with low perceived confidence, an individual may exhibit maladaptive behaviors, such as choosing tasks that are too easy or too hard, not trying as hard as possible, and dropping out. Therefore, the sole dependence on normative sources of information may lay the foundation for future achievement-related difficulties, even among the most confident ego-oriented athletes (Duda, in press; Duda & Hall, 2001).

The mechanism by which goals might influence the development of self-confidence is related to tendencies regarding the type of information and processes employed to judge one's level of ability to perform the task (Duda & Hall, 2001; Magyar & Duda, 2000; Williams, 1994). Williams (1994) found a conceptually consistent link between one's goal orientation and the selection of sources of competence information in the sport domain. Specifically, task-oriented individuals were found to prefer using goal attainment, learning, and improving, as information about their competence; whereas, ego-oriented athletes were more likely to compare themselves with others when assessing their ability. Aligned with the development of perceived competence, we hypothesized a similar relationship would emerge between an athlete's goal orientation and the selection of sources of confidence in sport (Magyar & Duda, 2000; Schunk, 1995, 1996; Williams, 1994).

According to social cognitive theory, in addition to one's dispositional tendencies, achievement-related beliefs are also greatly influenced by the perceived situational factors that are present (Ames, 1990, 1992; Bandura, 1997; Nicholls, 1984). Research in the physical education context has identified student perceptions of the motivational climate as emphasizing a

mastery (or task-involving) and performance (or ego-involving) approach to learning (Curry et. al., 1996; Duda, in press; Ferrer-Caja & Weiss, 2000; Kavaussanu & Roberts, 1996). This research has found that perceptions of the physical education class climate correspond with students' self-efficacy beliefs, intrinsic interest, and sources used to evaluate success. Specifically, students who perceive the climate as more mastery in nature, experience greater intrinsic motivation, have a more positive attitude toward the class, use mastery goals and/or self-referenced sources of information to evaluate performance, have enhanced self-efficacy beliefs, and perceive the class to be a positive challenge. In contrast, when students perceive more of an ego-involving or performance climate, they demonstrate a negative attitude toward the class, see the class as a negative challenge, display negative perceptions of self-competence, have lower efficacy beliefs, use normatively referenced goals and sources of information, and focus on the outcome of the activity.

Similarly, the climate among different competitive youth sports may influence the level of confidence and selection of sources of confidence information. In the youth sport setting, research has predominately focused on motivational indices such as, perceived competence, intrinsic interest, beliefs about the causes of success, and sources of satisfaction in sport (Duda & Hall, 2001; Newton & Duda, 1999; Seifriz, Duda, & Chi, 1992; Treasure & Roberts, 1998). Athletes who have high perceived ability, adopt task involved goals, and perceive a mastery sport climate are more likely to have an intrinsic interest in the sport, attribute success to effort, and experience satisfaction from mastery experiences. Conversely, athletes who adopt ego-involved goals in sport and perceive the sport climate to be performance based have low intrinsic interest in the sport, and derive satisfaction from outperforming others, and attribute success to ability and deception.

Some of the research findings revealed that the degree to which goal orientations predict achievement-related beliefs (e.g., confidence information) are dependent on the strength of the climate (Duda, in press; Duda & Hall, 2001; Kavaussanau & Roberts, 1996; Newton & Duda, 1999; Treasure & Roberts, 1998). Specifically, the extent to which goal orientations predict the motivational variable of interest was a function of the moderating influence, or the interaction between goal orientation and motivational climate. According to James and Brett (1984), motivational climate would be a moderating variable if the relationship between goal orientation and achievement beliefs was a function of the level of the motivational climate. The moderator

affects the direction and or strength of this relationship and specifies when the relationship will hold (Barron & Kenney, 1986). Newton & Duda (1999) examined the interaction between goal orientations and perceptions of motivational climate among female volleyball players and failed to find motivational climate as a moderating influence. However, Treasure and Roberts (1998) did find that motivational climate moderated the influence of goal orientation on female basketball players beliefs about success and sources of satisfaction. Specifically, they found athletes that were either high or low in task orientation were more likely to perceive the climate as mastery oriented and subsequently use mastery experiences as a source of satisfaction. Therefore, Duda (in press) recommends that the interaction between goal orientations and perceptions of climate should be investigated when predicting achievement-related beliefs in sport.

Perceived motivational climate also could be considered a mediator of the influence of goal orientation on achievement-related beliefs.¹ Motivational climate would function as a mediator to the extent that it could account for the relation between goal orientations and achievement beliefs (Baron & Kenny, 1986). The mediation model attempts to explain how goal orientations influence achievement beliefs. Research investigating the mediating role of goals has been conducted mainly in the physical education setting, which posits that situational goals (i.e., motivational climate) may be more influential than dispositional goals because of the mandatory nature of the task (Duda, in press).

Therefore, the research to date conducted on the interrelated effects of dispositional and situational goals on achievement-related beliefs in sport remains equivocal. Duda (in press) contends that the salience of one tendency (i.e., dispositional versus situational influences) over the other will depend on the nature of the dependent variable. She explains that if the dependent variable of interest is more state-like (e.g., self-efficacy beliefs), then the situational climate is expected to emerge as a better predictor; whereas, if the dependent variable is more dispositional (e.g., sources of confidence), then goal orientations should emerge as the better predictor. In our study, we asked athletes to respond to the stem "I usually feel confident in volleyball when I ..." thus establishing a dispositional temporal frame of reference as opposed to a state-like question (e.g., "How confident are you right now?"). Due to the dispositional nature of our dependent variable, we hypothesized that goal orientation would emerge as the better predictor of confidence information. Figures 1 and 2 illustrate the differences between the moderation and

mediation models that have been proposed to influence achievement-related beliefs. Due to the equivocal nature of the findings in the literature, moderator and mediator influences were explored.

In order to explicate these previous findings and have a better understanding of both the dispositional and situational influences on the development of confidence among team sport athletes, subsequent research is needed. In addition, research specifically on the selection of sources of confidence information for female adolescent athletes may help determine how confidence beliefs are influenced for this population (Chase & Magyar, 1997; Chase, Vealey, & Magyar, 1999; Duda, 1997; Lirgg, 1992; Richman, & Shaffer, 2000; Vealey, 2001). We believe that by linking a particular goal orientation, or perception of motivational climate with the manner in which the sources are being referenced, researchers will have a better picture of what constitutes adaptive (or self-referenced) and maladaptive (or normative referenced) achievement patterns in sport. This is not to say that the use of normatively referenced sources is entirely maladaptive (Harackiewicz, Barron, Tauer, Carter, & Elliot, 2000; Pintrich, 2000). Rather, how normatively referenced sources are used (i.e., when it is the sole use of information) and if this use or selection is linked to a particular disposition (e.g., high ego orientation with low task orientation), then normatively referenced sources may have maladaptive implications on motivation.

However, our classification of the sources of confidence is slightly different than Vealey's (2001) categorization. For example, she proposes that mastery and demonstration of ability represent the achievement (i.e., source of confidence based on past performance) of the athlete, while physical/mental preparation and physical self-presentation represent the self-regulatory strategies used by the athlete, and social support, vicarious experience, coach's leadership, environmental comfort, and situational favorableness represent the social climate in which the athlete performs. We believe that the classification we have proposed in the current study casts a different light on the sources that influence the confidence patterns of athletes. Specifically, we proposed that the use of mastery, physical/mental preparation, and vicarious experience represent the use of adaptive sources, or sources that are more self-referenced in nature and within the athletes direct control.² In contrast to this adaptive pattern, we proposed that the demonstration of ability, physical self-presentation, and situational favorableness represent the use of sources that are more maladaptive or normatively based. These sources are

dependent on the presence and performance of others, factors that are not within the athletes' immediate control. Finally, we proposed a third group of sources that are environmental/social comprised of the social support, coach's leadership, and environmental comfort sources, ultimately depicting the environment in which the athlete is performing.

For the purpose of this study, we hypothesized that athletes' goal orientations would differentially predict the selection of self-confidence sources. Specifically, task orientation would be positively associated with the selection of self-referenced sources such as mastery and mental/physical preparation sources of confidence. Conversely, ego orientation would be positively associated with the selection of more normative sources such as demonstration of ability, physical self-presentation and situational favorableness. Secondly, we hypothesized that perceptions of the motivational climate would also differentially influence the selection of sport confidence sources. Specifically, perceptions of a mastery climate would be associated with the selection of adaptive sources of confidence (i.e., mastery and physical/mental preparation), while perceptions of a performance climate would be positively related to sources that reflect a more maladaptive achievement belief (i.e., demonstration of ability, physical self-presentation, and situational favorableness). In addition, we explored the influence of motivational climate as a moderator and mediator of goal orientation on the selection of sport-confidence sources due to the dispositional nature of sources of information.

Method

Participants

Participants in this study were 180 female volleyball players ages 12-18 years ($M=14.80$, $SD=1.66$), from two competitive age group volleyball clubs in the Midwestern region of the United States of America. Athletes representing 27 different teams participated in the study. The players had an average of 4 years experience playing volleyball ($SD=1.82$).

Measures

Goal orientations in sport. The Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda & Nicholls, 1992) was used to assess individual differences in goal orientation within the sport context. The TEOSQ contains 13 items and asks the athletes to reflect on when they feel successful in their respective sport and respond to each item on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Seven items are designed to assess

variations in the proneness for task goals (e.g., "I feel successful when I work really hard"), and 6 items assess proneness for ego-involved goals (e.g., "I feel successful when I can do better than others"). Scores for each participant were calculated as the mean score of the 7 items for the task dimension and 6 items for ego. Consistent with previous research using the TEOSQ (Duda & Whitehead, 1998), in this sample, the observed internal reliability scores using Cronbach's (1951) alpha were satisfactory for the task ($\alpha = .80$) and ego dimensions ($\alpha = .87$).

Sources of sport-confidence. The Sources of Sport-Confidence Questionnaire (SSCQ), developed by Vealey and colleagues (1998)³, was used to measure athletes' sources of confidence information. When completing the questionnaire, the athlete was presented with the statement "I usually gain self-confidence in volleyball when I.." and then rated her level of confidence regarding each item on a scale from 0 (not at all confident) to 10 (completely confident).

The questionnaire contains 43 items and a total of nine subscales: Mastery (5 items), Demonstration of Ability (6 items), Physical/Mental Preparation (6 items), Physical Self-Presentation (3 items), Social Support (6 items), Coaches Leadership (5 items), Vicarious Experience (5 items), Environmental Comfort (4 items), and Situational Favorableness (3 items). Subscale scores were created for each participant by calculating a mean score of all items for each subscale. All of the sources of sport confidence subscales, except for the Situational Favorableness ($\alpha = .58$), exhibited acceptable reliability ranging from .71 to .94 for the current sample. Removal of the item "I feel that everything is 'going right' for me in that situation" resulted in an alpha coefficient of .73 for the Situational Favorableness subscale.

Perceived motivational climate. The motivational climate of each team was measured using the Perceived Motivational Climate in Sport Questionnaire-2 (PMCSQ-2). This 29-item inventory developed by Newton and Duda (1999)⁴ assessed the extent to which athletes perceive the situationally emphasized goals on their current team as mastery or performance. Fifteen items are designed to assess mastery goals (i.e., "players feel successful when they improve"), and 14 items assess the performance based goals (i.e., "coach favors some players more than others"). The PMCSQ-2 asks the athlete to respond on a 5-point Likert scale and indicate the degree to which she strongly disagrees (1) to strongly agrees (5) with each item. Mastery and Performance climate scores were calculated by taking the average of subscale items for each

athlete. Both subscales were found to be internally consistent for this sample, with internal reliabilities of .88 for mastery climate and .91 for performance climate.

Procedures

Following permission from the institutional review board, the directors of local volleyball clubs were contacted about participation in the current investigation. After permission was received from the club directors, head coaches were contacted to ask permission to include their teams in the study. Coaches who were willing to participate allowed the athletes to complete the questionnaire during a practice at the end of the competitive season. Data were collected by one of the following ways: (a) the primary investigator attended practice to administer the questionnaires, or (b) athletes were given the questionnaires by the coach to be completed during practice. The athletes were provided with an envelope and were asked to place the completed questionnaire in the envelope and seal it closed before returning it to the investigator/coach. Participants took approximately 15-20 min. to complete the questionnaires.

Results

Descriptive Statistics for Independent and Dependent Variables

Scale means and standard deviations for the measures of goal orientations, perceptions of motivational climate, and sources of sport-confidence for the entire sample are presented in Table 1. Athletes' placed more emphasis on task orientation and perceived a stronger mastery climate than performance climate. The sources of confidence that were most salient to building confidence in volleyball were mastery, physical/mental preparation, and social support sources.

Goal Orientations and Sources of Sport Confidence

Inspection of Pearson Product Moment Correlations in Table 1 revealed a significant link between task orientation and the use of mastery, physical/mental preparation, social support, vicarious experience, and coach's leadership sources of sport confidence. This is consistent with our proposed hypothesis that task orientation would be positively associated with more adaptive, or self-referenced sources of confidence such as personal mastery, physical/mental preparation, and vicarious experience. In addition to these self-referenced sources, task orientation was also linked to environmental sources such as social support and coach's leadership. Further support for the first hypothesis was established as ego orientation demonstrated a significant positive relationship with the demonstration of ability, physical self-presentation, and situational favorableness sources of confidence. Therefore, athletes with a predominance in ego orientation

were more likely to select sources of sport confidence that were not within their personal control and considered more maladaptive in nature.

Perceived Motivational Climate and Sources of Sport Confidence

As shown in Table 1, perceptions of a mastery-based climate were positively associated with task orientation and negatively associated with perceptions of a performance climate. In essence, athletes who perceived their coaches as establishing a climate that was mastery in nature were more likely to display a predominance in task orientation, and less likely to perceive a performance climate. Furthermore, these athletes were more inclined to rely on sources outside of personal performance such as social support and coach's leadership sources. Perceptions of a performance climate emerged as significant, and negatively associated with the coach's leadership source.

Testing for Moderator and Mediator Effects

In order to examine the role of motivational climate, both moderator and mediator regression models were conducted based on the recommendations of Baron and Kenny (1986) and Aiken and West (1991). Due to the exploratory nature of the current investigation, and the number of tests involved with each of the hypotheses, the alpha levels were adjusted to .001 to control for Type I error.

Following the procedures outlined by Aiken and West (1991), the variables were centered (i.e., standardized) to prevent the main effects and interaction terms from being highly correlated. To test for moderator effects, a series of hierarchical regression analyses were conducted with the centered goal orientation and motivational climate main effects $((X - M)/ SD)$ entered first (task, ego, mastery climate, and performance climate) followed by all of the two-way interaction terms for the four main effects (e.g., product of task and ego orientation) entered in the second step, followed by all of the possible three-way interaction terms entered in the third step and finally the four-way interaction term was entered last. Motivational climate was distinguished as a moderator if any of the interaction terms containing the climate emerged as a significant predictor. The hypothesized 4-step hierarchical regression model was tested for each of the nine sources of confidence information as the dependent variables. Regression analyses failed to identify any of the interaction terms as a significant predictor for sport confidence sources. Thus, perceptions of motivational climate did not moderate the relationship between goal orientation and sources of sport confidence.

To determine the potential mediating influence of motivational climate, the following conditions must be met according to Baron & Kenney (1986): (a) Step 1: goal orientation must significantly predict motivational climate; (b) Step 2: goal orientation must significantly predict each of the nine sources of confidence; (c) Step 3: motivational climate must significantly predict each of the nine sources of confidence and the effect of goal orientation on each of the nine sources is altered when motivational climate is entered into the equation. A series of separate regression analyses were conducted for each of the nine sources of confidence information for mastery and performance climates, for a total of 18 regression analyses. Regression analyses revealed that motivational climate mediated the influence of goal orientations on only two sources of sport confidence (See Table 2). Specifically, perceptions of both a mastery and performance climate influenced the relationship between goal orientations and the coach's leadership source (see Figure 3). The more task-oriented athletes who perceived a mastery climate, which influenced their use of coach's leadership as a source of confidence; whereas ego-oriented athletes perceived more of a performance climate, which negatively influenced their consideration of this source of confidence. Although, the alpha level did not meet our adjusted criteria, perceptions of a mastery climate mediated the influence of task orientation on the social support source of confidence at a .05 level. This may indicate that athletes who perceived more of a mastery climate may have been more likely to use the support from others as a means to build confidence (see Figure 4). Furthermore, athletes who were task oriented tended to perceive more of a mastery climate, which may have influenced their use of support from others as a means to build confidence.

Secondary testing of the mediation was conducted using structural equation modeling (SEM) to determine if the significant mediation models fit the observed data (Elliot, McGregor, & Gable, 1999). Using LISREL 8, the variables were represented as observed indicators, and maximum likelihood estimation with the correlation matrix as input was generated to determine the model fit. The SEM analysis revealed that the coach's leadership mediation model provided a satisfactory fit to the data; χ^2 (2, N=180) = 5.59, p = .06; GFI = .99, AGFI = .91; CFI = .95; IFI = .96. A satisfactory model fit was also observed for the social support mediation model χ^2 (2, N= 180) = 5.59, p , = .06; GFI = .99; AGFI = .91; CFI = .96; IFI = .96.

While the regression analyses revealed that motivational climate mediated the influence of goal orientation on only two of the sources, goal orientations were found to predict 6 of the 9

sources of confidence. Namely the task orientation main effect emerged as the best predictor for mastery ($\beta = .45$, $p = .000$, Adj. $R^2 = .19$), physical/mental preparation ($\beta = .42$, $p = .000$, Adj. $R^2 = .17$), and vicarious experience ($\beta = .29$, $p = .000$, Adj. $R^2 = .08$) sources of sport confidence. The ego orientation main effect emerged as the best predictor for the demonstration of ability ($\beta = .60$, $p = .000$, Adj. $R^2 = .35$), physical self-presentation ($\beta = .33$, $p = .000$, Adj. $R^2 = .10$), and situational favorableness ($\beta = .29$, $p = .000$, Adj. $R^2 = .08$) sources of sport confidence.

Discussion

The purpose of this study was to expand beyond the descriptive notion of developing confidence in sport, and determine the influence of goal orientations and perceptions of motivational climate on the selection of sources of sport confidence. Specifically, we wanted to see if one's goal orientation, perception of climate, or combination of the two tendencies would predict the selection of either adaptive or maladaptive sources.

Tendencies and Confidence Patterns

Based on our classification of the sources, we hypothesized that a proneness in task orientation would influence the use of self-referenced sources of confidence, while ego orientation would be associated with the selection of normative sources. Correlational analyses provided support for this hypothesis showing that task orientation was linked to mastery and physical/mental preparation sources; whereas, ego orientation was associated with demonstration of ability, physical self-presentation, and situational favorableness. Thus, the current results support the findings of Williams (1994), and provide evidence that there is a distinct difference in patterns of confidence information in sport based on the athlete's dispositional tendencies.

We also hypothesized that these patterns would be further influenced given the athlete's perception of the motivational climate with perceptions of mastery-involved climate facilitating the selection of adaptive sources (i.e., mastery and physical/mental preparation) and perceptions of a performance-involved climate associating with the selection of maladaptive sources (i.e., demonstration of ability, physical self-presentation, and situational favorableness). This hypothesis was partially supported with perceptions of a mastery climate demonstrating a positive correlation with the mastery source of confidence. However, perceptions of a performance climate demonstrated a significant negative relationship with the coach's leadership source, and failed to exhibit a significant positive relationship with any of the hypothesized sources of confidence.

The Mediating Influence of Motivational Climate

In an attempt to expand beyond the correlational relationship between the dispositional and situational tendencies and confidence patterns, a series of regression analyses were conducted to examine potential moderator and mediator effects. Motivational climate failed to emerge as a moderator for any of the sources of confidence; however, goal orientations emerged as the strongest predictor for 6 of the 9 sources of confidence. This finding demonstrated that the majority of the sources of confidence as assessed by the SSCI were dispositional in nature and heavily influenced by the goal orientation one adopts. Furthermore, these results are consistent with Newton and Duda (1999) who also failed to identify the moderating influence of the motivational climate among a sample of age-group volleyball players. The authors mentioned that the sample's high task-involving team climate combined with the athletes' high task orientation might have contributed to the non-significant interaction. A similar conclusion can be made about the current sample as the mean scores for the task orientation and mastery motivational climate were very similar to those of Newton and Duda (1999). Duda (in press) also postulates that the lack of variation in these tendencies make it difficult for the interactions to emerge as significant predictors of achievement-related beliefs. Similar to the Newton and Duda (1999) investigation, the standard deviations for goal orientations and motivational climate were rather small for the current sample indicating little variation among the players' beliefs and perceptions.

What was more compelling was the mediating influence of motivational climate on the coach's leadership and social support sources of confidence. Athletes who adopted a task orientation and perceived a mastery climate as established by the coach, were more confident in their own ability to play volleyball as a result of their coach's ability to train volleyball players, make good decisions, and lead the team. Furthermore, athletes who perceived a performance climate did not use the coach's leadership as a source to build their confidence in volleyball. This finding emphasizes a significant link between an athlete's goal orientation, perceptions of motivational climate, or situational tendencies that are influenced by the coach, and the athletes' use of sources to build their confidence. In addition to fostering confidence through their own leadership abilities, coaches who were successful at establishing a mastery climate may have also

increased the salience of support from others (i.e., parents, teammates, and peers), as a viable source that can be used to build confidence. Therefore, this observed relationship between the climate established by the coach, the athlete's goal orientation, and her confidence in her ability has important implications for coaches who want to know how to build self-confidence in their athletes.

Although, this relationship was not included in our original hypotheses, it makes conceptual sense in that it is possible that the social support and coach's leadership sources were more situational in nature compared to the other sources of confidence. Despite the temporal frame of reference, athletes who were predominately task oriented and perceived themselves performing in a mastery oriented climate were more likely to use sources such as coach's leadership and support from others which may be considered more situational in nature. Vealey (2001) discusses the importance of considering factors such as the motivational climate that are embedded within the organizational culture of the sport. However, previous research had yet to investigate the empirical link between the motivational climate and the selection of sport confidence sources. Therefore, the results of the current study alludes to the even greater importance of establishing a mastery-involved climate when developing the physical skill in addition to the psychological well being of the female athlete.

Conclusions

In addition to the applied implications of the current investigation, this research provides a valuable contribution to the literature on achievement goal theory in sport. Specifically, we have provided further evidence on the role of the motivational climate in influencing achievement-related beliefs. While, the distinction between moderating versus mediating influence of the climate needs further investigation, our results provide support for Duda's (in press) contention that the role of the climate is highly dependent on the dispositional versus situational nature of the criterion of interest, and the homogeneity of the group being assessed. Therefore, longitudinal research that examines how dispositional goals, situational influences, and achievement-related beliefs, such as sport confidence interact and potentially change over time is warranted.

References

Aiken, L.S., & West, S.G. (1991). Multiple Regression: Testing and interpreting interactions. Newbury Park, CA: Sage Publications.

Ames, C. (1990). Motivation: What teachers need to know. Teachers College Record, 91, 409-421.

Ames, C. (1992). Achievement goals, motivational climate, and motivational processes. In G. Roberts (Ed.), Motivation in Sport and Exercise. (pp. 161-176). Champaign IL: Human Kinetics.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: W.H. Freeman.

Bandura, A. (1990). Perceived self-efficacy in the exercise of personal agency. Applied Sport Psychology, 2, 128-163.

Barron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. Journal of Personality and Social Psychology, 51, 1173-1182.

Chase, M.A. (1998). Sources of self-efficacy in physical education and sport. Journal of Teaching in Physical Education, 18, 76-89.

Chase, M.A., & Magyar, T.M. (1997). Determinants of self-efficacy beliefs in physical activities and sport. In Lidor, R. & Bar-Eli, M. (Eds.) Innovations in Sport Psychology: Linking Theory and Practice. Proceedings, Netanya (Israel), The Zinman College of Physical Education and Sport Sciences, The Wingate Institute for Physical Education and Sport, 1997, pt. I, pp. 197-199.

Chase, M.A., Vealey, R.S., & Magyar, T.M. (1999). Psychological strategies as a source of self-confidence: A social developmental perspective. Paper presented at the Centennial of the Department of Kinesiology Symposium, Michigan State University, East Lansing, MI.

Cronbach, L.J. (1951). Coefficient alpha and the internal structure of tests. Psychometrika, 6, 297-334.

Cury, F., Biddle, S., Famose, J., Goudas, M., Sarrazin, P., & Durand, M. (1996). Personal and situational factors influencing intrinsic interest of adolescent girls in school physical education: a structural equation model analysis. Educational Psychology, 16, 305-315.

Duda, J.L. (1997). Goal perspectives and their implications for an active and healthy life style among girls and women. Women in Sport and Physical Activity Journal, 6, 239-253.

Duda, J.L. (in press). Goal Perspective Research in Sport: Pushing the Boundaries and Clarifying Some Misunderstandings. Chapter to appear in G. Roberts (Ed.), Advances in Motivation in Sport and Exercise. Champaign, IL: Human Kinetics.

Duda, J.L., & Hall, H. (2001). Achievement goal theory in sport: Recent extensions and future directions. In R. N. Singer, H.A. Hausenblas, & C. M. Janelle (Eds.), Handbook of Sport Psychology. (pp. 417-443). New York: John Wiley & Sons.

Duda, J.L., & Nicholls, J.G. (1992). Dimensions of achievement motivation in schoolwork and sport. Journal of Educational Psychology, 84, 290-299.

Duda, J.L., & Whitehead, J. (1998). Measurement of goal perspectives in the physical domain. In J.L. Duda (Ed.), Advances in Sport and Exercise Psychology Measurement. (pp. 21-48). Morgantown, WV: FIT Press.

Elliot, A.J., McGregor, H.A., & Gable, S. (1999). Achievement goals, study strategies, and exam performance: A mediational analysis. Journal of Educational Psychology, 91, 549-563.

Feltz, D.L. (1994). Self-confidence and Performance. In D. Druckman & R.A. Bjork (Eds.), Learning, Remembering, Believing. (pp. 173-343). Washington, D.C.: National Academy Press.

Feltz, D.L., & Lirgg, C.D. (2001). Self-efficacy beliefs of athletes, teams, and coaches. In R. N. Singer, H.A. Hausenblas, & C. M. Janelle (Eds.), Handbook of Sport Psychology. (pp. 340-361). New York: John Wiley & Sons.

Ferrer-Caja, E., & Weiss, M.R. (2000). Predictors of intrinsic motivation among adolescent students in physical education. Research Quarterly for Exercise and Sport, 71, 267-279.

Harackiewicz, J.M., Barron, K.E., Tauer, J.M., Carter, S.M., & Elliot, A.J. (2000). Short-term and long-term consequences of achievement goals predicting interest and performance over time. Journal of Educational Psychology, 92, 316-330.

James, L.R., & Brett, J.M. (1984). Mediators, moderators, and tests for mediation. Journal of Applied Psychology, 69, 307-321.

Joreskog, K., & Sorbom, D. (1993). LISREL 8 User's Guide. Chicago: Scientific Software International.

Kavussanu, M. & Roberts, G.C. (1996). Motivation in physical activity contexts: The relationship of perceived motivational climate to intrinsic motivation and self-efficacy. Journal of Sport and Exercise Psychology, 18, 264-280.

Lirgg, C.D. (1992). Girls and women, sport, and self-confidence. Quest, 44, 158-178.

Magyar, T.M., & Duda, J. L. (2000). Confidence restoration following athletic injury. The Sport Psychologist, 14, 372-390.

Newton, M. & Duda, J.L. (1999). The interaction of motivational climate, dispositional goal orientations, and perceived ability in predicting indices of motivation. International Journal of Sport Psychology, 30, 63-82.

Newton, M., Duda, J.L., & Yin, Z. (2000). Examination of the psychometric properties of the Perceived Motivational Climate in Sport Questionnaire-2 in a sample of female athletes. Journal of Sport Sciences, 18, 275-290.

Nicholls, J.G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. Psychological Review, 91, 328-346.

Nicholls, J.G. (1992). The general and the specific in the development and expression of achievement motivation. In G.C. Roberts (Ed.), Motivation in sport and exercise. (pp. 31-55). Champaign IL: Human Kinetics.

Pintrich, P.R. (2000). Multiple goals, multiple pathways: The role of goal orientation in learning and achievement. Journal of Educational Psychology, 92, 544-555.

Richman, E.L., & Shaffer, D.R. (2000). "If you let me play sports:" How might sport participation influence the self-esteem of adolescent females? Psychology of Women Quarterly, 24, 189-199.

Roberts, G.C. & Treasure, D.C. (1995). Achievement goals, motivational climate and achievement strategies and behaviors in sport. International Journal of Sport Psychology, 26, 64-80.

Schunk, D.H. (1995). Self-efficacy, motivation, and performance. Journal of Applied Sport Psychology, 7, 112-137.

Schunk, D.H. (1996). Self-efficacy for Learning and Performance. Paper presented at the annual meeting of the American Educational Research Association, New York.

Seifriz, J., Duda, J.L., & Chi, L. (1992). The relationship of perceived motivational climate to intrinsic motivation and beliefs about success in basketball. Journal of Sport and Exercise Psychology, 14, 375-391.

Treasure, D.C., & Roberts, G.C. (1998). Relationship between female adolescents achievement goal orientations, perceptions of the motivational climate, belief about success and sources of satisfaction in basketball. International Journal of Sport Psychology, 29, 211-230.

Vealey, R.S. (2001). Understanding and enhancing self-confidence in athletes. In R. N. Singer, H.A. Hausenblas, & C. M. Janelle (Eds.), Handbook of Sport Psychology. (pp. 550-565). New York: John Wiley & Sons.

Vealey, R.S., Hayashi, S.M., Garner-Holman, G., & Giacobbi, P. (1998). Sources of sport-confidence in athletes: Preliminary conceptual and psychometric development. Journal of Sport and Exercise Psychology, 20, 54-80.

Williams, L. (1994). Goal orientations and athletes' performances for competence information sources. Journal of Sport and Exercise Psychology, 16, 416-430.

Footnotes

1. Some other findings demonstrate that goal orientations may mediate the influence of the perceived motivational climate on achievement -related beliefs (Curry, et. al., 1996; Duda, in press; Ferrer-Caja & Weiss, 2000). However, if goal orientations are more dispositional in nature, as proposed by Nicholls (1984), then these goals should be antecedent to the perceived climate, and subsequently influence achievement-related beliefs through its influence on perceptions of the climate.
2. We believe that the vicarious experience source as assessed by the Sources of Sport Confidence Questionnaire is self-referenced in nature. Although the athlete is watching another athlete, or model, perform a skill, the purpose behind this comparison is to learn from the model athlete as opposed to demonstrate superior ability relative to that model athlete.
3. The Sources of Sport Confidence Questionnaire scale was modified from the original 7-point Likert scale, (i.e., 1 to 7) to an 11-point Likert scale (i.e., 0 to 10). This modification was made based on Bandura's (1997) recommendation on assessing self-efficacy/confidence beliefs.
4. At the time of the initial data collection, the PMCSQ-2 (Newton & Duda, 1999) version had yet to be modified from the 29-item inventory to the 33-item inventory (Newton, Duda, & Yin, 2000).

Table 1

Descriptive Statistics and Correlation Coefficients for Goal Orientations, Perceptions of Motivational Climate, and Sources of Sport Confidence (N = 180)

	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Task Orientation	1.0												
2. Ego Orientation	.06	1.0											
3. Mastery Climate	.23*	-.14	1.0										
4. Performance Climate	-.04	.23*	-.51*	1.0									
5: Mastery	.45*	-.14	.17*	-.05	1.0								
6. Demonstration of Ability	.12	.60*	-.03	.13	.24*	1.0							
7. Physical/Mental Preparation	.42*	-.05	.14	-.03	.65*	.26*	1.0						
8. Physical Self-Presentation	.12	.33*	-.04	.04	.33*	.51*	.27*	1.0					
9. Social Support	.29*	-.09	.23*	-.11	.55*	.25*	.55*	.39*	1.0				
10. Vicarious Experience	.29*	-.03	.05	.11	.43*	.31*	.42*	.38*	.45*	1.0			
11. Environmental Comfort	.10	.05	.07	-.02	.37*	.40*	.35*	.50*	.46*	.49*	1.0		
12. Situational Favorableness	-.11	.29*	-.01	.01	.08	.46*	.11	.41*	.18	.35*	.40*	1.0	
13. Coach's Leadership	.15*	.06	.18*	-.16*	.33*	.30*	.43*	.25*	.45*	.36*	.25*	.17*	1.0
M	4.38	2.80	4.07	2.38	8.67	6.98	8.23	6.65	8.66	6.90	7.10	6.26	7.75
SD	.46	.91	.54	.77	1.02	1.97	1.21	2.39	1.02	1.81	1.62	1.86	1.93

Table 2

Significant Mediator Models for the Coach's Leadership and Social Support Sources of Confidence

Predictor	Criterion	Beta	Adj. R2	P
<u>Coach's Leadership</u>				
Step 1. Task orientation	Mastery Climate	.23	.05	.002
Step 2. Task orientation	Coach's Leadership Source	.15	.02	.05
Step 3. Task orientation and Mastery Climate	Coach's Leadership Source	.11		.14
		.16	.03	.04
Step 1. Ego Orientation	Performance Climate	.23	.05	.002
Step 2. Ego Orientation	Coach's Leadership Source	.06	.00	.43
Step 3. Ego Orientation and Performance Climate	Coach's Leadership Source	.10		.19
		-.18	.02	.02
<u>Social Support</u>				
Step 1. Task Orientation	Mastery Climate	.23	.05	.002
Step 2. Task Orientation	Social Support Source	.29	.08	.000
Step 3. Task Orientation and Mastery Climate	Social Support Source	.25		.001
		.17	.10	.02
Step 1. Ego Orientation	Performance Climate	.23	.05	.002
Step 2. Ego Orientation	Social Support Source	-.09	.003	.21
Step 3. Ego Orientation and Performance Climate	Social Support Source	-.07	.006	.34
		-.10		.21

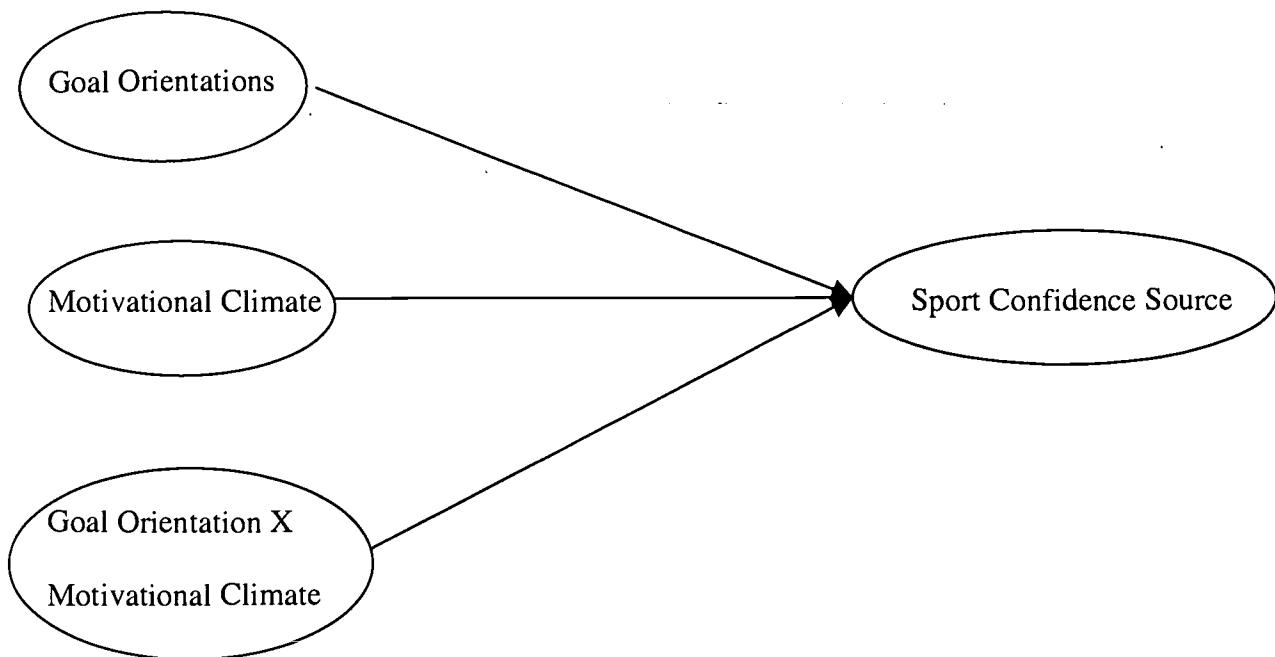


Figure 1. Moderator regression model between goal orientations, perceptions of motivational climate and sport confidence sources.

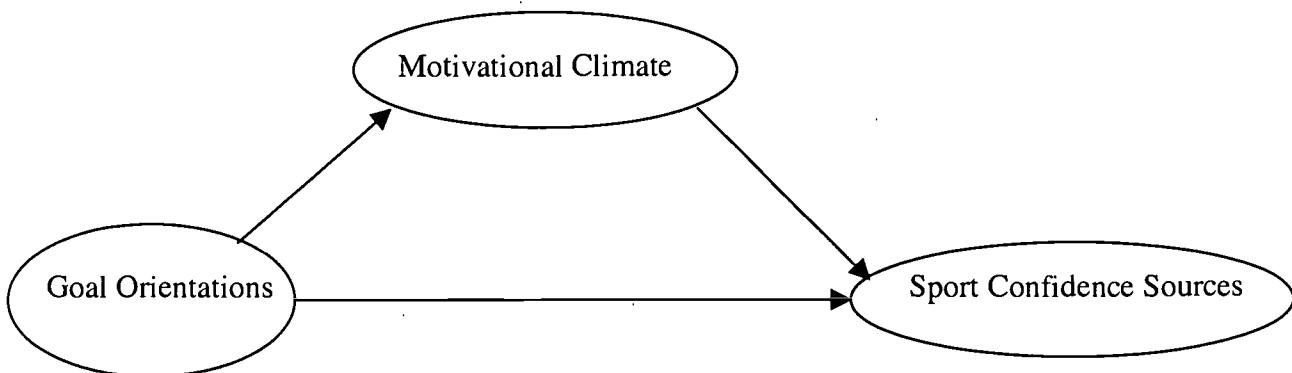


Figure 2. Regression model that tested the mediating influence of motivational climate on the relationship between goal orientations and sources of sport confidence.

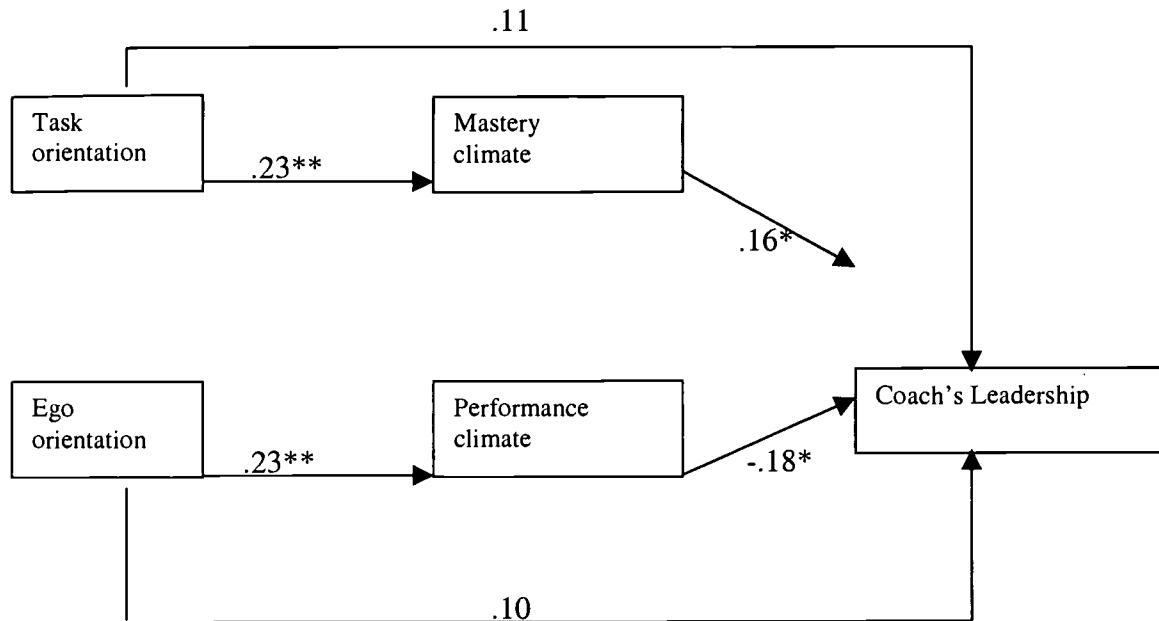


Figure 3. Significant mediator model that assessed the mediating influence of motivational climate on the relationship between goal orientation and the selection of the coach's leadership source of confidence.

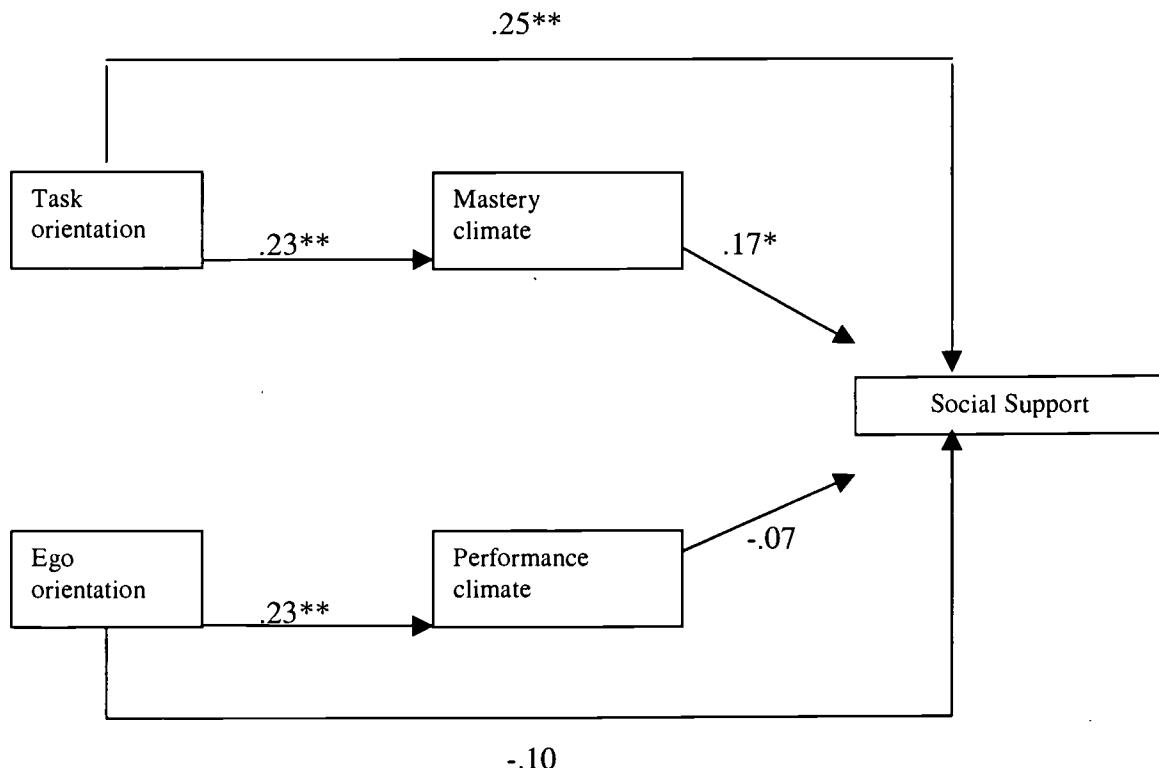


Figure 4. Significant mediator model that assessed the mediating influence of mastery climate on the relationship between task orientation and social support source of confidence.



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